



west virginia department of environmental protection

Division of Air Quality
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G80-A GENERAL PERMIT REGISTRATION APPLICATION

PREVENTION AND CONTROL OF AIR POLLUTION IN REGARD TO THE CONSTRUCTION, MODIFICATION,
RELOCATION, ADMINISTRATIVE UPDATE AND OPERATION OF NATURAL GAS PRODUCTION,
COMPRESSOR AND/OR DEHYDRATION FACILITIES

☐ CONSTRUCTION
☐ MODIFICATION
☐ RELOCATION

☐ CLASS I ADMINISTRATIVE UPDATE
☐ CLASS II ADMINISTRATIVE UPDATE

SECTION 1. GENERAL INFORMATION

Name of Applicant (as registered with the WV Secretary of State's Office):

Federal Employer ID No. (FEIN):

Applicant's Mailing Address:

City:

State:

ZIP Code:

Type of Source: ☐ Production Facility ☐ Compressor Facility ☐ Dehydration Facility

Facility Name:

Operating Site Physical Address:

If none available, list road, city or town and zip of facility.

City:

Zip Code:

County:

Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits):

Latitude:

Longitude:

SIC Code:

DAQ Facility ID No. (For existing facilities)

NAICS Code:

CERTIFICATION OF INFORMATION

This G80-A General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. **Any administratively incomplete or improperly signed or unsigned G80-A Registration Application will be returned to the applicant. Furthermore, if the G80-A forms are not utilized, the application will be returned to the applicant. No substitution of forms is allowed.**

I hereby certify that _____ is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Division of Air Quality immediately.

I hereby certify that all information contained in this G-80A General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible.

Responsible Official Signature: _____

Name and Title:

Phone:

Fax:

Email:

Date:

If applicable:

Authorized Representative Signature: _____

Name and Title:

Phone:

Fax:

Email:

Date:

If applicable:

Environmental Contact

Name and Title:

Phone:

Fax:

Email:

Date:

OPERATING SITE INFORMATION	
Briefly describe the proposed new operation and/or any change(s) to the facility:	
Directions to the facility:	
ATTACHMENTS AND SUPPORTING DOCUMENTS	
I have enclosed the following required documents:	
Check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR13 and 45CSR22).	
<input type="checkbox"/> Check attached to front of application. <input type="checkbox"/> I wish to pay by electronic transfer. <input type="checkbox"/> I wish to pay by credit card.	
<input checked="" type="checkbox"/> \$500 (Construction, Modification, and Relocation) <input type="checkbox"/> \$300 (Class II Administrative Update) <input type="checkbox"/> \$1,000 NSPS fee for 40 CFR60, Subpart IIII ¹ <input type="checkbox"/> \$1,000 NSPS fee for 40 CFR60, Subpart JJJJ ¹ <input type="checkbox"/> \$1,000 NSPS fee for 40 CFR60, Subpart OOOO ¹ <input type="checkbox"/> \$2,500 NESHAP fee for 40 CFR63, Subpart ZZZZ ² <input type="checkbox"/> \$2,500 NESHAP fee for 40 CFR63, Subpart HH ²	
¹ Only one NSPS fee will apply. ² Only one NESHAP fee will apply. The Subpart ZZZZ NESHAP fee will be waived for new engines that satisfy requirements by complying with NSPS, Subparts IIII and/or JJJJ.	
<input type="checkbox"/> Responsible Official or Authorized Representative Signature (if applicable)	
<input type="checkbox"/> Single Source Determination Form (must be completed in its entirety) – Attachment A	
<input type="checkbox"/> Siting Criteria Waiver (if applicable) – Attachment B	<input type="checkbox"/> Current Business Certificate – Attachment C
<input type="checkbox"/> Process Flow Diagram – Attachment D	<input type="checkbox"/> Process Description – Attachment E
<input type="checkbox"/> Plot Plan – Attachment F	<input type="checkbox"/> Area Map – Attachment G
<input type="checkbox"/> G80-A Section Applicability Form – Attachment H	<input type="checkbox"/> Emission Units/ERD Table – Attachment I
<input type="checkbox"/> Fugitive Emissions Summary Sheet – Attachment J	
<input type="checkbox"/> Gas Well Affected Facility Data Sheet (if applicable) – Attachment K	
<input type="checkbox"/> Storage Vessel(s) Data Sheet (include gas sample data, USEPA Tanks, simulation software (e.g. ProMax, E&P Tanks, HYSYS, etc.), etc. where applicable) – Attachment L	
<input type="checkbox"/> Natural Gas Fired Fuel Burning Unit(s) Data Sheet (GPU's, Heater Treaters, In-Line Heaters if applicable) – Attachment M	
<input type="checkbox"/> Internal Combustion Engine Data Sheet(s) (include manufacturer performance data sheet(s) if applicable) – Attachment N	
<input type="checkbox"/> Tanker Truck Loading Data Sheet (if applicable) – Attachment O	
<input type="checkbox"/> Glycol Dehydration Unit Data Sheet(s) (include wet gas analysis, GRI-GLYCalc input and output reports and information on reboiler if applicable) – Attachment P	
<input type="checkbox"/> Pneumatic Controllers Data Sheet – Attachment Q	
<input type="checkbox"/> Air Pollution Control Device/Emission Reduction Device(s) Sheet(s) (include manufacturer performance data sheet(s) if applicable) – Attachment R	
<input type="checkbox"/> Emission Calculations (please be specific and include all calculation methodologies used) – Attachment S	
<input type="checkbox"/> Facility Wide Emission Summary Sheet(s) – Attachment T	
<input type="checkbox"/> Class I Legal Advertisement – Attachment U	
<input type="checkbox"/> One (1) paper copy and two (2) copies of CD or DVD with pdf copy of Application and Excel Spreadsheets (plot plans, all attachments and supporting documents)	

All attachments must be identified by name, divided into sections, and submitted in order.

ATTACHMENT A - SINGLE SOURCE DETERMINATION FORM

Answer each question with a detailed explanation to determine contiguous or adjacent properties which are under a common control and any support facilities. This section must be completed in its entirety.

Provide a map of contiguous or adjacent facilities (production facilities, compressor stations, dehydration facilities, etc.) which are under common control and those facilities that are not "under common control" but are "support facilities". Please indicate the SIC code, permit number (if applicable), and the distance between facilities in question on the map.

Are the facilities owned by the same parent company or a subsidiary of the parent company? Provide the owners identity and the percentage of ownership of each facility.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Does an entity such as a corporation have decision making authority over the operation of a second entity through a contractual agreement or voting interest? Please explain.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is there a contract for service relationship between the two (2) companies or, a support/dependency relationship that exists between the two (2) companies? Please explain.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do the facilities share common workforces, plant managers, security forces, corporate executive officers or board executives?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Will managers or other workers frequently shuttle back and forth to be involved actively at both facilities?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do the facilities share common payroll activities, employee benefits, health plans, retirement funds, insurance coverage, or other administrative functions? Please explain.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Does one (1) facility operation support the operation of the other facility?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is one (1) facility dependent on the other? If one (1) facility shuts down, what are the limitations on the other to pursue outside business? Please explain.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there any financial arrangements between the two (2) entities?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there any legal or leased agreements between the two (2) facilities?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do the facilities share products, byproducts, equipment, or other manufacturing or air pollution control device equipment? Please explain.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do all the pollutant emitting activities in the facilities belong to the same SIC code? Please provide the SIC codes.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are the facilities on contiguous or adjacent properties? Please provide the distances between the boundary lines of the properties.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Was the location of the new facility chosen primarily because of its proximity to the existing facility to integrate the operation of the two (2) facilities? Please explain.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Will materials be routinely transferred between the two (2) facilities? Please explain the amount of transfer and how often the transfers take place and what percentages go to the various entities.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Does the facility influence production levels or compliance with environmental regulations at other facilities? Who accepts the responsibility for compliance with air quality requirements? Please explain.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

ATTACHMENT B - SITING CRITERIA WAIVER
If applicable, please complete this form and it must be notarized.

ATTACHMENT B - SITING CRITERIA WAIVER
If applicable, please complete this form and it must be notarized.

G80-A General Permit Siting Criteria Waiver

WV Division of Air Quality 300' Waiver

I _____ hereby
Print Name

acknowledge and agree that _____ will
General Permit Applicant's Name

construct an emission unit(s) at a natural gas production, compressor and/or dehydration facility that will be located within 300' of my dwelling and/or business.

I hereby offer this waiver of siting criteria to the West Virginia Department of Environmental Protection Division of Air Quality as permission to construct, install and operate in such location.

Signed:

Signature _____

Date _____

Signature

Date

Taken, subscribed and sworn before me this _____ day of

_____, 20____.

My commission expires: _____

SEAL _____
Notary Public

ATTACHMENT C – CURRENT BUSINESS CERTIFICATE

If the applicant is a resident of West Virginia, the applicant should provide a copy of the current Business Registration Certificate issued to them from the West Virginia Secretary of State's Office. If the applicant is not a resident of the state of West Virginia, the registrant should provide a copy of the Certificate of Authority/Authority of LLC/Registration. This information is required for all sources to operate a business in West Virginia regardless of whether it is a construction, modification, or an administrative update.

If you are a new business to West Virginia and have applied to the West Virginia Secretary of State's Office for a business license, please include a copy of your application.

Please note: Under the West Virginia Bureau of Employment Programs, 96CSR1, the DAQ may not grant, issue, or renew approval of any permit, general permit registration, or Certificate to Operate to any employing unit whose account is in default with the Bureau of Employment Programs, Unemployment Compensation Division.

ATTACHMENT D – PROCESS FLOW DIAGRAM

Provide a diagram or schematic that supplements the process description of the operation. The process flow diagram must show all sources, components or facets of the operation in an understandable line sequence of operation. The process flow diagram should include the emission unit ID numbers, the pollution control device ID numbers, and the emission point ID numbers consistent with references in other attachments of the application. For a proposed modification, clearly identify the process areas, emission units, emission points, and/or control devices that will be modified, and specify the nature and extent of the modification.

Use the following guidelines to ensure a complete process flow diagram:

- The process flow diagram shall logically follow the entire process from beginning to end.
- Identify each emission source and air pollution control device with proper and consistent emission unit identification numbers, emission point identification numbers, and control device identification numbers.
- The process flow lines may appear different for clarity. For example, dotted lines may be used for vapor flow and solid lines used for liquid flow and arrows for direction of flow.
- The process flow lines may be color coded. For example: new or modified equipment may be red; old or existing equipment may be blue; different stages of preparation such as raw material may be green; and finished product or refuse, another color.

ATTACHMENT E – PROCESS DESCRIPTION

Provide a detailed written description of the operation for which the applicant is seeking a permit. The process description is used in conjunction with the process flow diagram to provide the reviewing engineer a complete understanding of the activity at the operation. Describe in detail and order the complete process operation.

Use the following guidelines to ensure a complete Process Description:

- The process flow diagram should be prepared first and used as a guide when preparing the process description. The written description shall follow the logical order of the process flow diagram.
- All emission sources, emission points, and air pollution control devices must be included in the process description.
- When modifications are proposed, describe the modifications and the effect the changes will have on the emission sources, emission points, control devices and the potential emissions.
- Proper emission source ID numbers must be used consistently in the process description, the process flow diagram, the emissions calculations, and the emissions summary information provided.
- Include any additional information that may facilitate the reviewer's understanding of the process operation.

The process description is required for all sources regardless of whether it is a construction, modification, or administrative update.

ATTACHMENT F – PLOT PLAN

Provide an accurately scaled and detailed Plot Plan showing the locations of all emission units, emission points, and air pollution control devices. Show all emission units, affected facilities, enclosures, buildings and plant entrances and exits from the nearest public road(s) as appropriate. Note height, width and length of proposed or existing buildings and structures.

A scale between 1"=10' and 1"=200' should be used with the determining factor being the level of detail necessary to show operation or plant areas, affected facilities, emission unit sources, transfer points, etc. An overall small scale plot plan (e.g., 1"=300') should be submitted in addition to larger scale plot plans for process or activity areas (e.g., 1"=50') if the plant is too large to allow adequate detail on a single plot plan. Process or activity areas may be grouped for the enlargements as long as sufficient detail is shown.

Use the following guidelines to ensure a complete Plot Plan:

- Facility name
- Company name
- Company facility ID number (for existing facilities)
- Plot scale, north arrow, date drawn, and submittal date.
- Fence line
- Property lines
- Base elevation
- UTM and lat/long reference coordinates from the area map and corresponding reference point elevation
- Location of all sources labeled with proper and consistent source identification numbers

This information is required for all sources regardless of whether it is a construction, modification, or administrative update.

ATTACHMENT G – AREA MAP

Provide an Area Map showing the current or proposed location of the operation. On this map, identify plant or operation property lines, access roads and any adjacent dwelling, business, public building, school, church, cemetery, community or institutional building or public park.

Mark and reference latitude and longitude coordinates and the corresponding elevation above mean sea level for the operation. These coordinates must be provided for a point inside the plant boundary near the center of the property and be accurate to within 50 meters.

Please provide a 300 foot boundary circle on the map surrounding the proposed emission units.

This information is required for all sources regardless of whether it is a construction, modification, or administrative update.

ATTACHMENT H – G80-A SECTION APPLICABILITY FORM

General Permit G80-A Registration Section Applicability Form

General Permit G80-A was developed to allow qualified applicants to seek registration for a variety of sources. These sources include gas well affected facilities, storage vessels, gas production units, in-line heaters, heater treaters, glycol dehydration units and associated reboilers, pneumatic controllers, centrifugal compressors, reciprocating compressors, reciprocating internal combustion engines (RICEs), tank truck loading, fugitive emissions, completion combustion devices, flares, enclosed combustion devices, and vapor recovery systems. All registered facilities will be subject to Sections 1.0, 2.0, 3.0, and 4.0.

General Permit G80-A allows the registrant to choose which sections of the permit they are seeking registration under. Therefore, please mark which additional sections that you are applying for registration under. If the applicant is seeking registration under multiple sections, please select all that apply. Please keep in mind, that if this registration is approved, the issued registration will state which sections will apply to your affected facility.

GENERAL PERMIT G80-A APPLICABLE SECTIONS	
<input type="checkbox"/> Section 5.0	Gas Well Affected Facility (NSPS, Subpart OOOO)
<input type="checkbox"/> Section 6.0	Storage Vessels ¹
<input type="checkbox"/> Section 7.0	Storage Vessel Affected Facility (NSPS, Subpart OOOO)
<input type="checkbox"/> Section 8.0	Control Devices and Emission Reduction Devices not subject to NSPS, Subpart OOOO
<input type="checkbox"/> Section 9.0	Gas Production Units (GPUs), In-Line Heaters, Heater Treaters, and Glycol Dehydration Reboilers
<input type="checkbox"/> Section 10.0	Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)
<input type="checkbox"/> Section 11.0	Centrifugal Compressor Affected Facility (NSPS, Subpart OOOO) ²
<input type="checkbox"/> Section 12.0	Reciprocating Compressor Affected Facility (NSPS, Subpart OOOO) ²
<input type="checkbox"/> Section 13.0	Reciprocating Internal Combustion Engines, Generator Engines
<input type="checkbox"/> Section 14.0	Tanker Truck Loading ³
<input type="checkbox"/> Section 15.0	Glycol Dehydration Units ⁴

- 1 Applicants that are subject to Section 6 may also be subject to Section 7 if the applicant is subject to the NSPS, Subpart OOOO control requirements or the applicable control device requirements of Section 8.*
- 2 Applicants that are subject to Section 11 and 12 are also subject to the applicable RICE requirements of Section 13.*
- 3 Applicants that are subject to Section 14 may also be subject to control device and emission reduction device requirements of Section 8.*
- 4 Applicants that are subject to Section 15 are also subject to the requirements of Section 9 (reboilers). Applicants that are subject to Section 15 may also be subject to control device and emission reduction device requirements of Section 8.*

ATTACHMENT I – EMISSION UNITS / EMISSION REDUCTION DEVICES (ERD) TABLE

Include ALL emission units and air pollution control devices/ERDs that will be part of this permit application review. Please list all storage vessels associated with operation (including those that have negligible emissions). This information is required for all sources regardless of whether it is a construction, modification, or administrative update.

[illegible]

¹ For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S,... or other appropriate designation.

² For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.

³ New, modification, removal, existing

⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

⁵ For ERDs use the following numbering system: 1D, 2D, 3D,... or other appropriate designation.

ATTACHMENT J – FUGITIVE EMISSIONS SUMMARY SHEET

Sources of fugitive emissions may include loading operations, haul road emissions, equipment leaks, blowdown emissions, etc.
Use extra pages for each associated source or equipment if necessary.

Source/Equipment:

Leak Detection
Method Used

☐ Audible, visual, and olfactory (AVO)
inspections

☐ Infrared (FLIR) cameras

☐ Other (please describe)

Component Type	Closed Vent System	Count	Monitor Frequency	Average Time to Repair (days)	Source of Leak Factors (EPA, other (specify))	Stream type (gas, liquid, etc)	Estimated Emissions (tpy)			
							VOC	HAP	GHG (CO ₂ e)	Other
Pumps	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Valves	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Safety Relief Valves	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Open Ended Lines	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Sampling Connections	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Connections (Not sampling)	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Compressors	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Flanges	<input type="checkbox"/> Yes <input type="checkbox"/> No									
Other ¹	<input type="checkbox"/> Yes <input type="checkbox"/> No									

¹ Other equipment types may include compressor seals, relief valves, diaphragms, drains, meters, etc.

Please provide an explanation of the sources of fugitive emissions (e.g. pigging operations, equipment blowdowns, pneumatic controllers, etc.):

Please indicate if there are any closed vent bypasses (include component):

Specify all equipment used in the closed vent system (e.g. VRU, ERD, thief hatches, tanker truck loading, etc.)

Fugitive Emissions			
Pollutant	Hourly PTE (lb/hr)	Annual PTE (tpy) ¹	Calculation Methodology Used
VOC			
Total HAPs			
GHG (CO2e)			
Other			
Other			
Other			
Other			
¹ Based on 8,760 hours/yr.			

ATTACHMENT K – GAS WELL AFFECTED FACILITY DATA SHEET

Complete this data sheet if you are the owner or operator of a gas well affected facility for which construction, modification or reconstruction commenced after August 23, 2011. This form must be completed for natural gas well affected facilities regardless of when flowback operations occur (or have occurred).

API Number	Farm Name	Date of Flowback	Date of Well Completion	Green Completion and/or Combustion Device

Note: If future wells are planned and no API number is available please list as PLANNED. If there are existing wells that commenced construction prior to August 23, 2011, please acknowledge as existing.

This is the same API (American Petroleum Institute) well number(s) provided in the well completion notification and as provided to the WVDEP, Office of Oil and Gas for the well permit. The API number may be provided on the application without the state code (047).

Every oil and gas well permitted in West Virginia since 1929 has been issued an API number. This API is used by agencies to identify and track oil and gas wells.

The API number has the following format: 047-001-00001

Where,

*047 = State code. The state code for WV is 047.
001 = County Code. County codes are odd numbers, beginning with 001 (Barbour) and continuing to 109 (Wyoming).
00001= Well number. Each well will have a unique well number.*

ATTACHMENT L – STORAGE VESSEL DATA SHEET

Complete this data sheet if you are the owner or operator of a storage vessel. This form must be completed for ***each*** new or modified bulk liquid storage vessel(s). (If you have more than one (1) identical tank (i.e. 4-400 bbl condensate tanks), then you can list all on one (1) data sheet). **Include gas sample analysis, flashing emissions, working and breathing losses, USEPA Tanks, simulation software (ProMax, E&P Tanks, HYSYS, etc.), and any other supporting documents where applicable.**

GENERAL INFORMATION (REQUIRED)

1. Bulk Storage Area Name	2. Tank Name
3. Emission Unit ID number	4. Emission Point ID number
5. Date Installed , Modified or Relocated <i>(for existing tanks)</i> Manufacturer Date:	6. Type of change: <input type="checkbox"/> New construction <input type="checkbox"/> New stored material <input type="checkbox"/> Other <input type="checkbox"/> Relocation
7A. Description of Tank Modification <i>(if applicable)</i>	
7B. Will more than one material be stored in this tank? <i>If so, a separate form must be completed for each material.</i> <input type="checkbox"/> Yes <input type="checkbox"/> No	
7C. Provide any limitations on source operation affecting emissions (production variation, etc.).	

TANK INFORMATION (REQUIRED)

8. Design Capacity <i>(specify barrels or gallons)</i> . Use the internal cross-sectional area multiplied by internal height.	
9A. Tank Internal Diameter (ft.)	9B. Tank Internal Height (ft.)
10A. Maximum Liquid Height (ft.)	10B. Average Liquid Height (ft.)
11A. Maximum Vapor Space Height (ft.)	11B. Average Vapor Space Height (ft.)
12. Nominal Capacity <i>(specify barrels or gallons)</i> . This is also known as “working volume.	
13A. Maximum annual throughput (gal/yr)	13B. Maximum daily throughput (gal/day)
14. Number of tank turnovers per year	15. Maximum tank fill rate (gal/min)
16. Tank fill method <input type="checkbox"/> Submerged <input type="checkbox"/> Splash <input type="checkbox"/> Bottom Loading	
17. Is the tank system a variable vapor space system? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, (A) What is the volume expansion capacity of the system (gal)? (B) What are the number of transfers into the system per year?	
18. Type of tank (check all that apply): <input type="checkbox"/> Fixed Roof <input type="checkbox"/> vertical <input type="checkbox"/> horizontal <input type="checkbox"/> flat roof <input type="checkbox"/> cone roof <input type="checkbox"/> dome roof <input type="checkbox"/> other (describe) <input type="checkbox"/> External Floating Roof <input type="checkbox"/> pontoon roof <input type="checkbox"/> double deck roof <input type="checkbox"/> Domed External (or Covered) Floating Roof <input type="checkbox"/> Internal Floating Roof <input type="checkbox"/> vertical column support <input type="checkbox"/> self-supporting <input type="checkbox"/> Variable Vapor Space <input type="checkbox"/> lifter roof <input type="checkbox"/> diaphragm <input type="checkbox"/> Pressurized <input type="checkbox"/> spherical <input type="checkbox"/> cylindrical <input type="checkbox"/> Other (describe)	

PRESSURE/VACUUM CONTROL DATA (REQUIRED)

19. Emission Control Devices (check as many as apply):

- ☐ Does Not Apply
 ☐ Rupture Disc (psig)
☐ Inert Gas Blanket of _____
 ☐ Carbon Adsorption¹
☐ Vent to Vapor Combustion Device¹ (vapor combustors, flares, thermal oxidizers, enclosed combustors)
☐ Conservation Vent (psig)
 ☐ Condenser¹

Vacuum Setting Pressure Setting

- ☐ Emergency Relief Valve (psig)

Vacuum Setting Pressure Setting

- ☐ Thief Hatch Weighted ☐ Yes ☐ No

¹ Complete appropriate Air Pollution Control Device Sheet

20. Expected Emission Rate (submit Test Data or Calculations here or elsewhere in the application).

Material Name and CAS No.	Flashing Loss		Breathing Loss		Working Loss		Total Emissions Loss		Estimation Method ¹
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	

¹ EPA = EPA Emission Factor, MB = Material Balance, SS = Similar Source, ST = Similar Source Test, Throughput Data, O = Other (specify)
 Remember to attach emissions calculations, including TANKS Summary Sheets and other modeling summary sheets if applicable.

TANK CONSTRUCTION AND OPERATION INFORMATION (REQUIRED)

21. Tank Shell Construction:

- ☐ Riveted
 ☐ Gunit lined
 ☐ Epoxy-coated rivets
 ☐ Other (describe)

21A. Shell Color:

21B. Roof Color:

21C. Year Last Painted:

22. Shell Condition (if metal and unlined):

- ☐ No Rust
 ☐ Light Rust
 ☐ Dense Rust
 ☐ Not applicable

22A. Is the tank heated? ☐ Yes ☐ No

22B. If yes, operating temperature:

22C. If yes, how is heat provided to tank?

23. Operating Pressure Range (psig):

Must be listed for tanks using VRUs with closed vent system.24. Is the tank a **Vertical Fixed Roof Tank**?

- ☐ Yes ☐ No

24A. If yes, for dome roof provide radius (ft):

24B. If yes, for cone roof, provide slop (ft/ft):

25. Complete item 25 for **Floating Roof Tanks** ☐ Does not apply ☐

25A. Year Internal Floaters Installed:

25B. Primary Seal Type (*check one*): ☐ Metallic (mechanical) shoe seal ☐ Liquid mounted resilient seal
☐ Vapor mounted resilient seal ☐ Other (describe):

25C. Is the Floating Roof equipped with a secondary seal? ☐ Yes ☐ No25D. If yes, how is the secondary seal mounted? (*check one*) ☐ Shoe ☐ Rim ☐ Other (describe):25E. Is the floating roof equipped with a weather shield? ☐ Yes ☐ No

25F. Describe deck fittings:

26. Complete the following section for **Internal Floating Roof Tanks** ☐ Does not apply

26A. Deck Type: <input type="checkbox"/> Bolted <input type="checkbox"/> Welded		26B. For bolted decks, provide deck construction:	
26C. Deck seam. Continuous sheet construction: <input type="checkbox"/> 5 ft. wide <input type="checkbox"/> 6 ft. wide <input type="checkbox"/> 7 ft. wide <input type="checkbox"/> 5 x 7.5 ft. wide <input type="checkbox"/> 5 x 12 ft. wide <input type="checkbox"/> other (describe)			
26D. Deck seam length (ft.):	26E. Area of deck (ft ²):	26F. For column supported tanks, # of columns:	26G. For column supported tanks, diameter of column:
27. Closed Vent System with VRU? <input type="checkbox"/> Yes <input type="checkbox"/> No			
28. Closed Vent System with Enclosed Combustor? <input type="checkbox"/> Yes <input type="checkbox"/> No			
SITE INFORMATION (REQUIRED):			
29. Provide the city and state on which the data in this section are based:			
30. Daily Avg. Ambient Temperature (°F):		31. Annual Avg. Maximum Temperature (°F):	
32. Annual Avg. Minimum Temperature (°F):		33. Avg. Wind Speed (mph):	
34. Annual Avg. Solar Insulation Factor (BTU/ft ² -day):		35. Atmospheric Pressure (psia):	
LIQUID INFORMATION (REQUIRED):			
36. Avg. daily temperature range of bulk liquid (°F):	36A. Minimum (°F):	36B. Maximum (°F):	
37. Avg. operating pressure range of tank (psig):	37A. Minimum (psig):	37B. Maximum (psig):	
38A. Minimum liquid surface temperature (°F):		38B. Corresponding vapor pressure (psia):	
39A. Avg. liquid surface temperature (°F):		39B. Corresponding vapor pressure (psia):	
40A. Maximum liquid surface temperature (°F):		40B. Corresponding vapor pressure (psia):	
41. Provide the following for each liquid or gas to be stored in the tank. Add additional pages if necessary.			
41A. Material name and composition:			
41B. CAS number:			
41C. Liquid density (lb/gal):			
41D. Liquid molecular weight (lb/lb-mole):			
41E. Vapor molecular weight (lb/lb-mole):			
41F. Maximum true vapor pressure (psia):			
41G. Maximum Reid vapor pressure (psia):			
41H. Months Storage per year. From: To:			
42. Final maximum gauge pressure and temperature prior to transfer into tank used as inputs into flashing emission calculations.			

List all storage tanks including deminimis storage tanks (i.e. lube oil, glycol, etc.)

1. Enter the appropriate Source Identification Numbers (Source ID #) for each storage tank located at the compressor station. Tanks should be designated T01, T02, T03, etc.
2. Enter storage tank Status using the following:

EXIST	Existing Equipment
NEW	Installation of New Equipment
REM	Equipment Removed
3. Enter storage tank content such as condensate, pipeline liquids, glycol (DEG or TEG), lube oil, etc.
4. Enter the maximum design storage tank volume in gallons.

ATTACHMENT M – NATURAL GAS FIRED FUEL BURNING UNIT(S) DATA SHEET

Complete this data sheet for each Gas Production Unit(s), Heater Treater(s), and In-Line Heater(s) at the facility. Reboiler information should be entered on the Glycol Dehydration Emission Unit Data Sheet. ***The Maximum Design Heat Input (MDHI) must be less than 10 MMBTU/hr.***

[illegible]

- 1 Enter the appropriate Emission Unit (or Source) identification number for each fuel burning unit located at the
production pad. Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be
designated HT-1, HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For sources, use 1S,
2S, 3S...or other appropriate designation. Enter glycol dehydration unit Reboiler Vent data on the Glycol
Dehydration Unit Data Sheet.
- 2 Enter the appropriate Emission Point identification numbers for each fuel burning unit located at the production pad.
Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be designated HT-1,
HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For emission points, use 1E, 2E, 3E...or
other appropriate designation.
- 3 New, modification, removal
- 4 Enter design heat input capacity in MMBtu/hr.
- 5 Enter the fuel heating value in Btu/standard cubic foot.

ATTACHMENT N – INTERNAL COMBUSTION ENGINE DATA SHEET

Complete this data sheet for each internal combustion engine at the facility. Include manufacturer performance data sheet(s) or any other supporting document if applicable. Use extra pages if necessary.

Emission Unit ID# ¹							
Engine Manufacturer/Model							
Manufacturers Rated bhp/rpm							
Source Status ²							
Date Installed/ Modified/Removed/Relocated ³							
Engine Manufacturer /Reconstruction Date ⁴							
Check all applicable Federal Rules for the engine (include EPA Certificate of Conformity if applicable) ⁵		<input type="checkbox"/> 40CFR60 Subpart JJJJ <input type="checkbox"/> Certified? <input type="checkbox"/> 40CFR60 Subpart IIII <input type="checkbox"/> Certified? <input type="checkbox"/> 40CFR63 Subpart ZZZZ <input type="checkbox"/> NESHAP ZZZZ/ NSPS JJJJ Window	<input type="checkbox"/> 40CFR60 Subpart JJJJ <input type="checkbox"/> Certified? <input type="checkbox"/> 40CFR60 Subpart IIII <input type="checkbox"/> Certified? <input type="checkbox"/> 40CFR63 Subpart ZZZZ <input type="checkbox"/> NESHAP ZZZZ/ NSPS JJJJ Window	<input type="checkbox"/> 40CFR60 Subpart JJJJ <input type="checkbox"/> Certified? <input type="checkbox"/> 40CFR60 Subpart IIII <input type="checkbox"/> Certified? <input type="checkbox"/> 40CFR63 Subpart ZZZZ <input type="checkbox"/> NESHAP ZZZZ/ NSPS JJJJ Window			
Engine Type ⁶							
APCD Type ⁷							
Fuel Type ⁸							
H ₂ S (gr/100 scf)							
Operating bhp/rpm							
BSFC (BTU/bhp-hr)							
Hourly Fuel Throughput		ft ³ /hr gal/hr		ft ³ /hr gal/hr		ft ³ /hr gal/hr	
Annual Fuel Throughput (Must use 8,760 hrs/yr unless emergency generator)		MMft ³ /yr gal/yr		MMft ³ /yr gal/yr		MMft ³ /yr gal/yr	
Fuel Usage or Hours of Operation Metered		Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Calculation Methodology ⁹	Pollutant ¹⁰	Hourly PTE (lb/hr) ¹¹	Annual PTE (tons/year) ¹¹	Hourly PTE (lb/hr) ¹¹	Annual PTE (tons/year) ¹¹	Hourly PTE (lb/hr) ¹¹	Annual PTE (tons/year) ¹¹
	NO _x						
	CO						
	VOC						
	SO ₂						
	PM ₁₀						
	Formaldehyde						
	Total HAPs						
	GHG (CO ₂ e)						
	Other						
	Other						
	Other						
	Other						

- 1 Enter the appropriate Source Identification Number for each natural gas-fueled reciprocating internal combustion compressor/generator engine located at the compressor station. Multiple compressor engines should be designated CE-1, CE-2, CE-3 etc. Generator engines should be designated GE-1, GE-2, GE-3 etc. If more than three (3) engines exist, please use additional sheets.
- 2 Enter the Source Status using the following codes:

NS Construction of New Source (installation)	ES Existing Source
MS Modification of Existing Source	RS Relocated Source
REM Removal of Source	
- 3 Enter the date (or anticipated date) of the engine's installation (construction of source), modification, relocation or removal.
- 4 Enter the date that the engine was manufactured, modified or reconstructed.
- 5 Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart IIII/JJJJ? If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance as appropriate.

Provide a manufacturer's data sheet for all engines being registered.

- 6 Enter the Engine Type designation(s) using the following codes:

2SLB Two Stroke Lean Burn	4SRB Four Stroke Rich Burn
4SLB Four Stroke Lean Burn	
- 7 Enter the Air Pollution Control Device (APCD) type designation(s) using the following codes:

A/F Air/Fuel Ratio	IR Ignition Retard
HEIS High Energy Ignition System	SIPC Screw-in Precombustion Chambers
PSC Prestratified Charge	LEC Low Emission Combustion
NSCR Rich Burn & Non-Selective Catalytic Reduction	SCR Lean Burn & Selective Catalytic Reduction
- 8 Enter the Fuel Type using the following codes:

PQ Pipeline Quality Natural Gas	RG Raw Natural Gas /Production Gas	D Diesel
---------------------------------	------------------------------------	----------
- 9 Enter the Potential Emissions Data Reference designation using the following codes. Attach all reference data used.

MD Manufacturer's Data	AP AP-42
GR GRI-HAPCalc TM	OT Other (please list)
- 10 Enter each engine's Potential to Emit (PTE) for the listed regulated pollutants in pounds per hour and tons per year. PTE shall be calculated at manufacturer's rated brake horsepower and may reflect reduction efficiencies of listed Air Pollution Control Devices. Emergency generator engines may use 500 hours of operation when calculating PTE. PTE data from this data sheet shall be incorporated in the *Emissions Summary Sheet*.
- 11 PTE for engines shall be calculated from manufacturer's data unless unavailable.

Engine Air Pollution Control Device
(Emission Unit ID# , use extra pages as necessary)

Air Pollution Control Device Manufacturer's Data Sheet included?
Yes ☐ No ☐

☐ NSCR

☐ SCR

☐ Oxidation Catalyst

Is the engine equipped with an A/F Ratio Controller? ☐ Yes ☐ No Please Explain:

Provide details of process control used for proper mixing/control of reducing agent with gas stream:

Manufacturer:

Model #:

Design Operating Temperature: °F

Design gas volume: scfm

Service life of catalyst:

Provide manufacturer data? ☐ Yes ☐ No

Volume of gas handled: acfm at °F

Operating temperature range for NSCR/Ox Cat:
From °F to °F

Reducing agent used, if any:

Ammonia slip (ppm):

Pressure drop against catalyst bed (delta P): inches of H₂O

Provide description of warning/alarm system that protects unit when operation is not meeting design conditions:

Provide drawing of the location of equipment, control systems, other important parameters, and method of operation:

Is temperature and pressure drop of catalyst required to be monitored per 40CFR63 Subpart ZZZZ?

☐ Yes ☐ No

How often is catalyst recommended or required to be replaced (hours of operation)?

How often is performance test required?

☐ Initial

☐ Annual

☐ Every 8,760 hours of operation

☐ Field Testing Required

☐ No performance test required. If so, why (please list any maintenance required and the applicable sections in NSPS/GACT?)

ATTACHMENT O – TANKER TRUCK LOADING DATA SHEET

Complete this data sheet for each new or modified bulk liquid transfer area or loading rack at the facility. This is to be used for bulk liquid transfer operations to tanker trucks. Use extra pages if necessary.

Truck Loadout Collection Efficiencies

The following applicable capture efficiencies of a truck loadout are allowed:

- For tanker trucks passing the MACT level annual leak test – 99.2%
- For tanker trucks passing the NSPS level annual leak test – 98.7%
- For tanker trucks not passing one of the annual leak tests listed above – 70%

Compliance with this requirement shall be demonstrated by keeping records of the applicable MACT or NSPS Annual Leak Test certification for ***every*** truck and railcar loaded/unloaded. These additional requirements must be noted in the Registration Application and will be noted on the issued G80-A Registration.

Emission Unit ID#:	Emission Point ID#:	Year Installed/Modified:		
Emission Unit Description:				
Loading Area Data				
Number of Pumps:	Number of Liquids Loaded:	Max number of trucks loading at one (1) time:		
Describe cleaning location, compounds and procedure for tank trucks:				
Are tank trucks pressure tested for leaks at this or any other location? <input type="checkbox"/> Yes <input type="checkbox"/> No				
If Yes, Please describe:				
Provide description of closed vent system and any bypasses.				
Are any of the following truck loadout systems utilized?				
<input type="checkbox"/> Closed System to tanker truck passing a MACT level annual leak test?				
<input type="checkbox"/> Closed System to tanker truck passing a NSPS level annual leak test?				
<input type="checkbox"/> Closed System to tanker truck not passing an annual leak test and has vapor return?				
Projected Maximum Operating Schedule (for rack or transfer point as a whole)				
Time	Jan – Mar	Apr - Jun	Jul – Sept	Oct - Dec
Hours/day				
Days/week				
Bulk Liquid Data (use extra pages as necessary)				
Liquid Name				
Max. Daily Throughput (1000 gal/day)				
Max. Annual Throughput (1000 gal/yr)				
Loading Method ¹				
Max. Fill Rate (gal/min)				
Average Fill Time (min/loading)				
Max. Bulk Liquid Temperature (°F)				
True Vapor Pressure ²				
Cargo Vessel Condition ³				
Control Equipment or Method ⁴				
Max. Collection Efficiency (%)				

Max. Control Efficiency (%)				
Max. VOC Emission Rate	Loading (lb/hr)			
	Annual (ton/yr)			
Max. HAP Emission Rate	Loading (lb/hr)			
	Annual (ton/yr)			
Estimation Method ⁵				

- 1 BF Bottom Fill SP Splash Fill SUB Submerged Fill
- 2 At maximum bulk liquid temperature
- 3 B Ballasted Vessel C Cleaned U Uncleaned (dedicated service)
- O Other (describe)
- 4 List as many as apply (complete and submit appropriate Air Pollution Control Device Sheets)
- CA Carbon Adsorption VB Dedicated Vapor Balance (closed system)
- ECD Enclosed Combustion Device F Flare
- TO Thermal Oxidization or Incineration
- 5 EPA EPA Emission Factor in AP-42 MB Material Balance
- TM Test Measurement based upon test data submittal O Other (describe)

ATTACHMENT P – GLYCOL DEHYDRATION UNIT DATA SHEET

Complete this data sheet for each Glycol Dehydration Unit, Reboiler, Flash Tank and/or Regenerator at the facility. Include gas sample analysis and GRI-GlyCalc input and aggregate report. Use extra pages if necessary.

Manufacturer:	Model:
Max Dry Gas Flow Rate: mmscf/day	Reboiler Design Heat Input: MMBTU/hr
Design Type: <input type="checkbox"/> TEG <input type="checkbox"/> DEG	Source Status ¹ :
Date Installed/Modified/Removed ² :	Regenerator Still Vent APCD/ERD ³ :
Control Device/ERD ID# ³ :	Fuel HV (BTU/scf):
H ₂ S Content (gr/100 scf):	Operation (hours/year):
Annual Average Glycol Dehydrator Gas Throughput (scfm):	
Water Content (wt %) in: Wet Gas: Dry Gas:	
Is the glycol dehydration unit exempt from 40CFR63 Section 764(d)? <input type="checkbox"/> Yes <input type="checkbox"/> No: If Yes, answer the following:	
The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in §63.772(b)(1) of this subpart. <input type="checkbox"/> Yes <input type="checkbox"/> No	
The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year (1 ton per year), as determined by the procedures specified in §63.772(b)(2) of this subpart. <input type="checkbox"/> Yes <input type="checkbox"/> No	
Is the glycol dehydration unit located within an Urbanized Area (UA) or Urban Cluster (UC)? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Is a lean glycol pump optimization plan being utilized? <input type="checkbox"/> Yes <input type="checkbox"/> No	

Emissions Data	
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Emission Unit ID / Emission Point ID ⁴	Description	Calculation Methodology ⁵	PTE ⁶	Controlled Maximum Hourly Emissions (lb/hr)	Controlled Maximum Annual Emissions (tpy)
	Reboiler Vent		NO _x		
			CO		
			VOC		
			SO ₂		
			PM ₁₀		
			GHG (CO ₂ e)		
	Glycol Regenerator Still Vent	GRI-GlyCalc™	VOC		
		GRI-GlyCalc™	Benzene		
		GRI-GlyCalc™	Toluene		
		GRI-GlyCalc™	Ethylbenzene		
		GRI-GlyCalc™	Xylenes		
		GRI-GlyCalc™	n-Hexane		
	Glycol Flash Tank	GRI-GlyCalc™	VOC		
		GRI-GlyCalc™	Benzene		
		GRI-GlyCalc™	Toluene		
		GRI-GlyCalc™	Ethylbenzene		
		GRI-GlyCalc™	Xylenes		
		GRI-GlyCalc™	n-Hexane		

- | | | | | |
|---|---|---------------------------------|----|-------------------|
| 1 | Enter the Source Status using the following codes: | | | |
| | NS | Construction of New Source | ES | Existing Source |
| | MS | Modification of Existing Source | RS | Removal of Source |
| 2 | Enter the date (or anticipated date) of the glycol dehydration unit's installation (construction of source), modification or removal. | | | |

- 3 Enter the Air Pollution Control Device (APCD)/Emission Reduction Device (ERD) type designation using the following codes and the device ID number:
- | | | | | | |
|----|----------------------------------|----|------------------|----|---------------------|
| NA | None | CD | Condenser | FL | Flare |
| CC | Condenser/Combustion Combination | TO | Thermal Oxidizer | O | Other (please list) |
- 4 Enter the appropriate Emission Unit ID Numbers and Emission Point ID Numbers for the glycol dehydration unit reboiler vent and glycol regenerator still vent. The glycol dehydration unit reboiler vent and glycol regenerator still vent should be designated RBV-1 and RSV-1, respectively. If the compressor station incorporates multiple glycol dehydration units, a Glycol Dehydration Emission Unit Data Sheet shall be completed for each, using Source Identification #s RBV-2 and RSV-2, RBV-3 and RSV-3, etc.
- 5 Enter the Potential Emissions Data Reference designation using the following codes:
- | | | | |
|----|---------------------|----|---------------------|
| MD | Manufacturer's Data | AP | AP-42 |
| GR | GRI-GLYCalc™ | OT | Other (please list) |
- 6 Enter the Reboiler Vent and Glycol Regenerator Still Vent Potential to Emit (PTE) for the listed regulated pollutants in lbs per hour and tons per year. The Glycol Regenerator Still Vent potential emissions may be determined using the most recent version of the thermodynamic software model GRI-GLYCalc™ (Radian International LLC & Gas Research Institute). **Attach all referenced Potential Emissions Data (or calculations) and the GRI-GLYCalc™ Aggregate Calculations Report (shall include emissions reports, equipment reports, and stream reports) to this Glycol Dehydration Emission Unit Data Sheet(s).** This PTE data shall be incorporated in the Emissions Summary Sheet.

FLASH TANK AND/OR REGENERATOR INFORMATION DATA SHEET

Use extra pages if necessary.

Unit ID:		Make/Model:		
Tank Capacity (gal):		Tank Contents:		
Control Type:		Control Efficiency (%):		
Make/Model:		Burner Rating (MMBTU/hr):		
Flash Tank	Inlet Pressure (psig)	Outlet Pressure (psig)	Inlet Temp (°F)	Outlet Temp (°F)
Emissions Data				
Calculation Methodology ¹	PTE	Controlled Maximum Hourly Emissions (lb/hr)	Controlled Maximum Annual Emissions (tpy)	
	NO _x			
	CO			
	VOC			
	SO ₂			
	PM ₁₀			
	GHG (CO ₂ e)			

- 1 Enter the Potential Emissions Data Reference designation using the following codes:
- | | | | |
|----|---------------------|----|----------------------|
| MD | Manufacturer's Data | AP | AP-42 |
| GR | GRI-GLYCalc™ | OT | Other, (please list) |
| SS | Simulation Software | | |

**ATTACHMENT Q – PNEUMATIC CONTROLLERS
DATA SHEET**

Are there any continuous bleed natural gas driven pneumatic controllers at this facility that commenced construction, modification or reconstruction after August 23, 2011?

☐ Yes ☐ No

Please list approximate number.

Are there any continuous bleed natural gas driven pneumatic controllers at this facility with a bleed rate greater than 6 standard cubic feet per hour that are required based on functional needs, including but not limited to response time, safety and positive actuation that commenced construction, modification or reconstruction after August 23, 2011?

☐ Yes ☐ No

Please list approximate number.

ATTACHMENT R – AIR POLLUTION CONTROL DEVICE / EMISSION REDUCTION DEVICE SHEETS

Complete the applicable air pollution control device sheets for each flare, vapor combustor, thermal oxidizer, condenser, adsorption system, vapor recovery unit, BTEX Eliminator, Reboiler with and without Glow Plug, etc. at the facility. Use extra pages if necessary.

Does the applicant wish to be approved for an alternative air pollution control device?

☐ Yes ☐ No

If Yes, please indicate for which Emission Unit this will affect and the primary and secondary air pollution control device that will be utilized. Please be reminded of the notification requirements of G80-A Section 8.5.5 for the utilization of alternative air pollution control devices.

Emissions calculations must be performed using the most conservative control device efficiency.

The following five (5) rows are only to be completed if registering an alternative air pollution control device.

Emission Unit ID:	Make/Model:
Primary Control Device ID:	Make/Model:
Control Efficiency (%):	APCD/ERD Data Sheet Completed: <input type="checkbox"/> Yes <input type="checkbox"/> No
Secondary Control Device ID:	Make/Model:
Control Efficiency (%):	APCD/ERD Data Sheet Completed: <input type="checkbox"/> Yes <input type="checkbox"/> No

VAPOR COMBUSTION (Including Enclosed Combustors)

General Information

Control Device ID#:	Installation Date: <input type="checkbox"/> New <input type="checkbox"/> Modified <input type="checkbox"/> Relocated	
Maximum Rated Total Flow Capacity scfh scfd	Maximum Design Heat Input MMBTU/hr	Design Heat Content BTU/scf

Control Device Information

<input type="checkbox"/> Enclosed Combustion Device <input type="checkbox"/> Thermal Oxidizer	Type of Vapor Combustion Control? <input type="checkbox"/> Elevated Flare <input type="checkbox"/> Completion Combustion Device	<input type="checkbox"/> Ground Flare
Manufacturer: Model:	Hours of operation per year?	

List the emission units whose emissions are controlled by this vapor control device (Emission Point ID# _____)

Emission Unit ID#	Emission Source Description	Emission Unit ID#	Emission Source Description

If this vapor combustor controls emissions from more than six (6) emission units, please attach additional pages.

Assist Type (Flares only)	Flare Height	Tip Diameter	Was the design per §60.18?
<input type="checkbox"/> Steam <input type="checkbox"/> Air <input type="checkbox"/> Pressure <input type="checkbox"/> Non	feet	feet	<input type="checkbox"/> Yes <input type="checkbox"/> No Provide determination.

Waste Gas Information

Maximum Waste Gas Flow Rate (scfm)	Heat Value of Waste Gas Stream BTU/ft ³	Temperature of the Emissions Stream °F	Exit Velocity of the Emissions Stream (ft/s)
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Provide an attachment with the characteristics of the waste gas stream to be burned.

Pilot Gas Information

Type/Grade of Pilot Fuel	Number of Pilot Lights	Fuel Flow Rate to Pilot Flame per Pilot scfh	Heat Input per Pilot BTU/hr	Will automatic re-ignition be used? <input type="checkbox"/> Yes <input type="checkbox"/> No
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If automatic re-ignition is used, please describe the method.

Describe the method of controlling the flame.

Is pilot flame equipped with a monitor to detect the presence of the flame? <input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, what type? <input type="checkbox"/> Thermocouple <input type="checkbox"/> Infrared <input type="checkbox"/> Ultraviolet <input type="checkbox"/> Camera <input type="checkbox"/> Other:
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Control Device Technical Data

Pollutants Controlled	Manufacturer's Guaranteed Destruction Efficiency (%)

Has the control device been tested by the manufacturer and EPA certified for 40CFR60 Subpart OOOO?

Describe all operating ranges and maintenance procedures required by the manufacturer to maintain the warranty.

Additional information attached? ☐ Yes ☐ No

Please attach copies of manufacturer's data sheets, drawings, flame demonstration per 60.18 or 63.11(b) and performance testing

CONDENSER		
General Information		
Control Device ID#:	Installation Date: <input type="checkbox"/> New <input type="checkbox"/> Modified <input type="checkbox"/> Relocated	
Manufacturer	Model	Control Device Name
Method: <input type="checkbox"/> Pressure Condensation <input type="checkbox"/> Temperature Condensation <input type="checkbox"/> Surface <input type="checkbox"/> Contact <input type="checkbox"/> Refrigerated <input type="checkbox"/> Other		
Provide diagram of condenser describing the capture system with duct arrangement and size of duct, air volume, capacity, and horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.		
Coolant Inlet Temperature: °F	Coolant Outlet Temperature: °F	
Coolant Used:		
Gas Inlet Temperature: °F	Gas Outlet Temperature: °F	
Control Efficiency (%):		
Manufacturer's required temperature range for control efficiency. °F		
Control Device Technical Data		
Pollutants Controlled	Manufacturer's Guaranteed Control Efficiency (%)	
Describe the warning and/or alarm system that protects against operation when unit is not meeting the design requirements:		
Has the control device been tested by the manufacturer and certified and/or EPA certified?		
Describe all operating ranges and maintenance procedures required by the manufacturer to maintain the warranty.		
Additional information attached? <input type="checkbox"/> Yes <input type="checkbox"/> No Please attach copies of manufacturer's data sheets, drawings, and performance testing		
Is condenser routed to a secondary APCD or ERD? <input type="checkbox"/> Yes <input type="checkbox"/> No		
What is filter media?		

ADSORPTION SYSTEM		
General Information		
Control Device ID#:	Installation Date: <input type="checkbox"/> New <input type="checkbox"/> Modified <input type="checkbox"/> Relocated	
Manufacturer	Model	Control Device Name
Design Inlet Volume: scfm	Adsorbent charge per adsorber vessel and number of adsorber vessels:	
Length of Mass Transfer Zone supplied by the manufacturer:	Adsorber diameter: ft	Adsorber area: ft ²
Adsorbent type and physical properties:	Overall Control Efficiency (%):	
Working Capacity of Adsorbent (%):		
Operating Parameters		
Inlet volume: scfm @ °F		
Adsorption time per adsorption bed (life expectancy):	Breakthrough Capacity (lbs of VOC/100 lbs of adsorbent):	
Temperature range of carbon bed adsorber. °F - °F		
Control Device Technical Data		
Pollutants Controlled	Manufacturer's Guaranteed Control Efficiency (%)	
Describe the warning and/or alarm system that protects against operation when unit is not meeting the design requirements:		
Has the control device been tested by the manufacturer and certified?		
Describe all operating ranges and maintenance procedures required by the manufacturer to maintain the warranty.		
Additional information attached? <input type="checkbox"/> Yes <input type="checkbox"/> No Please attach copies of manufacturer's data sheets, drawings, and performance testing		

VAPOR RECOVERY UNIT			
General Information			
Emission Unit ID#:		Installation Date: <input type="checkbox"/> New <input type="checkbox"/> Modified <input type="checkbox"/> Relocated	
Device Information			
Manufacturer: Model:			
List the emission units whose emissions are controlled by this vapor recovery unit (Emission Point ID#)			
Emission Unit ID#	Emission Source Description	Emission Unit ID#	Emission Source Description
<i>If this vapor combustor controls emissions from more than six (6) emission units, please attach additional pages.</i>			
Technical Data			
Pollutants Controlled		Manufacturer's Guaranteed Control Efficiency (%)	
Has the control device been tested by the manufacturer and certified?			
Describe all operating ranges and maintenance procedures required by the manufacturer to maintain the warranty.			
Additional information attached? <input type="checkbox"/> Yes <input type="checkbox"/> No Please attach copies of manufacturer's data sheets, drawings, and performance testing			
The registrant may claim a capture and control efficiency of 95 % for the vapor recovery unit. If the registrant wishes to claim a greater capture and control efficiency, additional requirements must be met.			
If applicable, please choose which of the additional applicable design requirements will be utilized. Each additional design requirement employed will result in 1% additional capture and control efficiency.			
<input type="checkbox"/> Install additional sensing equipment to monitor the run status of the Vapor Recovery Unit(s). <input type="checkbox"/> Install a by-pass system which operates automatically whereby discharge is re-routed back to the inlet of the Vapor Recovery Unit(s) until the appropriate pressure is built up for the compressor to turn on. <input type="checkbox"/> Install a blanket gas and have automatic throttling valves to ensure oxygen does not enter the tanks. <input type="checkbox"/> Install a compressor that has the ability to vary the drive.			

CLOSED VENT SYSTEM	
General Information	
ERD ID#:	Installation Date: <input type="checkbox"/> New <input type="checkbox"/> Modified <input type="checkbox"/> Relocated
Provide description of closed vent system and any bypasses.	
Provide LDAR method and frequency.	
Control Device Technical Data	
Pollutants Controlled	Manufacturer's Guaranteed Control Efficiency (%)
Describe the warning and/or alarm system that protects against operation when unit is not meeting the design requirements:	

RECYCLED REBOILER SYSTEM	
General Information	
ERD ID#:	Installation Date: <input type="checkbox"/> New <input type="checkbox"/> Modified <input type="checkbox"/> Relocated
Recycling the glycol dehydration unit back to the flame zone of the reboiler. <input type="checkbox"/> Yes <input type="checkbox"/> No	
Recycling the glycol dehydration unit back to the flame zone of the reboiler and mixed with fuel. <input type="checkbox"/> Yes <input type="checkbox"/> No	
What happens when temperature controller shuts off fuel to the reboiler? <input type="checkbox"/> Still vent emissions to the atmosphere. <input type="checkbox"/> Still vent emissions stopped with valve. <input type="checkbox"/> Still vent emissions to glow plug.	
Control Device Technical Data	
Pollutants Controlled	Manufacturer's Guaranteed Control Efficiency (%)
Describe the warning and/or alarm system that protects against operation when unit is not meeting the design requirements:	

ATTACHMENT S – EMISSIONS CALCULATIONS

Provide detailed potential to emit (PTE) emission calculations for criteria and hazardous air pollutants (HAPS) for each emission point identified in the application. For hazardous air pollutants and volatile organic compounds (VOCs), the speciated emission calculations must be included.

Use the following guidelines to ensure complete emission calculations:

- All emission sources and fugitive emissions are included in the emission calculations, as well as all methods used to calculate the emissions.
- Proper emission point identification numbers and APCD and ERD identification numbers are used consistently in the emission calculations that are used throughout the application.
- A printout of the emission summary sheets is attached to the registration application.
- Printouts of any modeling that was used to perform the emissions calculations must be included with the emission calculations. The modeling printout must show all inputs/outputs or assumptions that the modeled emissions are based upon.
- If emissions are provided from the manufacturer, the manufacturer's documentation and/or certified emissions must also be included.
- The emission calculations results must match the emissions provided on the emissions summary sheet.
- If calculations are based on a compositional analysis of the gas, attach the laboratory analysis. Include the following information: the location that the sample was taken as representative; the date the sample was taken; whether the sample was taken from the actual site or a representative site; and, if the sample is considered representative, the reasons that it is considered representative (same gas field, same formation and depth, distance from actual site, etc.).
- Provide any additional clarification as necessary. Additional clarification or information is especially helpful when reviewing modeling calculations to assist the engineer in understanding the basis of assumptions and/or inputs.

Please follow specific guidance provided on the emissions summary sheet when providing the calculations.

ATTACHMENT T – FACILITY WIDE UNCONTROLLED EMISSIONS SUMMARY SHEET

List all sources of emissions in this table. Use extra pages if necessary.

[illegible]

Annual emissions shall be based on 8,760 hours per year of operation for all emission units except emergency generators. Include fugitives from component leaks and emissions from start-up and shut-down of engines.

ATTACHMENT T – FACILITY WIDE CONTROLLED EMISSIONS SUMMARY SHEET

List all sources of emissions in this table. Use extra pages if necessary.

[illegible]

Annual emissions shall be based on 8,760 hours per year of operation for all emission units except emergency generators. Include fugitives from component leaks and emissions from start-up and shut-down of engines.

ATTACHMENT T – FACILITY WIDE HAP UNCONTROLLED EMISSIONS SUMMARY SHEET

List all sources of emissions in this table. Use extra pages if necessary.

[illegible]

Annual emissions shall be based on 8,760 hours per year of operation for all emission units except emergency generators. Include fugitives from component leaks and emissions from start-up and shut-down of engines.

ATTACHMENT T – FACILITY WIDE HAP CONTROLLED EMISSIONS SUMMARY SHEET

List all sources of emissions in this table. Use extra pages if necessary.

[illegible]

Annual emissions shall be based on 8,760 hours per year of operation for all emission units except emergency generators. Include fugitives from component leaks and emissions from start-up and shut-down of engines.

ATTACHMENT T – FACILITY WIDE EMISSIONS AGGREGATE SUMMARY SHEET		
Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tons/year)
NO _x		
CO		
VOC		
SO ₂		
PM ₁₀		
PM _{2.5}		
GHG (CO ₂ e)		
Total HAPs		
Formaldehyde		
Benzene		
Toluene		
Ethylbenzene		
Xylenes		
Hexane		
Other		
Other		
Other		

ATTACHMENT U – CLASS I LEGAL ADVERTISEMENT

Publication of a proper Class I legal advertisement is a requirement of the G80-A registration process. In the event the applicant's legal advertisement fails to follow the requirements of 45CSR13, Section 8 or the requirements of Chapter 59, Article 3, of the West Virginia Code, the application will be considered incomplete and no further review of the application will occur until this is corrected.

The applicant, utilizing the format for the Class I legal advertisement example provided on the following page, shall have the legal advertisement appear a minimum of one (1) day in the newspaper most commonly read in the area where the facility exists or will be constructed. The notice must be published no earlier than five (5) working days of receipt by this office of your application. The original affidavit of publication must be received by this office no later than the last day of the public comment period.

The advertisement shall contain, at a minimum, the name of the applicant, the type and location of the source, the type and amount of air pollutants that will be discharged, the nature of the permit being sought, the proposed start-up date for the source, and a contact telephone number for more information.

The location of the source should be as specific as possible starting with: 1.) the street address of the source; 2.) the nearest street or road; 3.) the nearest town or unincorporated area, 4.) the county, and 5.) latitude and longitude coordinates in decimal format.

Types and amounts of pollutants discharged must include all regulated pollutants (Nitrogen Oxides, Carbon Monoxide, Particulate Matter, Particulate Matter-10, Volatile Organic Compounds, Sulfur Dioxide, Formaldehyde, Benzene, Toluene, Ethylbenzene, Xylenes, Hexane, Total Hazardous Air Pollutants and their potential to emit or the permit level being sought in units of tons per year (including fugitive emissions).

In the event the 30th day is a Saturday, Sunday, or legal holiday, the comment period will be extended until 5:00 p.m. on the following regularly scheduled business day.

A list of qualified newspapers that are eligible to publish legal ads may be found:

<http://www.sos.wv.gov/elections/resource/Documents/Qualified%20Newspapers.pdf>

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that (Applicant's Legal Name) has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a G80-A (General Permit Registration, General Permit Modification, General Permit Class II Administrative Update) for a (natural gas production facility, natural gas compressor facility, natural gas dehydration facility) located on (Street Name, Road Number, etc.), (in/near City or Town), in (County Name) County, West Virginia. The latitude and longitude coordinates are: (Provide latitude and longitude in decimal format, NAD83 Decimal to 5 digits).

The applicant estimates the (Increased, if modification application) potential to discharge the following Regulated Air Pollutants will be: (Pollutants and associated amounts in tons per year).

Startup of operation is planned to begin on or about the (Day) day of (Month), (Year). Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the (Day) day of (Month), (Year).

By: (Applicant's Legal Name)
(Name of Responsible Official)
(Title of Responsible Official)
(Mailing Address)
(City, State and Zip Code)